SEMINAR NOTICE

Preston M. Green Department of Electrical and Systems Engineering

SYSTEMIC RISK IN FINANCIAL NETWORKS WITH TIME DYNAMICS

PhD Preliminary Research Examination

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Abstract: We consider a generalized extension of the Eisenberg-Noe model of financial contagion to allow for time dynamics in both discrete and continuous time. We focus on the derivation of the model and the existence and uniqueness of the wealth of the firms. We use the dynamic framework to study the impact of contingent payments on financial systemic risk. We show that the dynamic framework allows for the existence and uniqueness of solutions in a general network with very mild assumptions and provides a better financial interpretation of the solutions than prior static models. We also consider the inclusion of multiple illiquid assets and the consequent optimal control problem to determine the required asset liquidation during a financial crisis.

DATE: Monday, June 11, 2018
TIME: 3:00 p.m.
PLACE: Green Hall, Room 0120

Dissertation advisor:
Dr. Zachary Feinstein

This seminar is in partial fulfillment
of the Doctor of Philosophy degree

Washington University in St. Louis
School of Engineering & Applied Science